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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,231	09/08/2003	Akehiro Matsuda	8008-1028-1	1077

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EXAMINER

DUONG, TAI V

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656.231

Applicant(s)

MATSUDA, AKEHIRO

Examiner

Tai Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 1, 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/907,603.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/15/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 (which depends on claim 1) is confusing because it recites the step of irradiating ultraviolet rays to said photo-curable resin with the state of pressing said second substrate on said first substrate with a predetermined pressure after performing the alignment between said first and second substrates. However, independent claim 1 recites the step of performing an alignment between said first and second substrates while (*at the same time*) pressing said second substrate on a surface of said first substrate.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art Fig. 3 in view of JP 11-326857 (JP'857) cited by Applicant.

Applicant's Prior Art Fig. 3 discloses a method of manufacturing a liquid crystal display constituted by bonding first and second substrates, said method comprising the

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steps of dropping a liquid crystal on said first substrate; performing an alignment between said first and second substrates; pressing said second substrate on a surface of said first substrate on which said liquid crystal is dropped with a predetermined pressure in a vacuum chamber where the internal pressure is below a predetermined value; and releasing said vacuum chamber into atmospheric pressure; performing an electrostatic suction of said first and second substrates on said first and second surface plates, respectively, after dropping said liquid crystal; dropping a photo-curable resin 143 on said first substrate after dropping said liquid crystal; and irradiating ultraviolet rays to said photo-curable resin with the state of pressing said second substrate on said first substrate with a predetermined pressure after performing the alignment between said first and second substrates (specification, pages 3-6). Thus, the only difference between the method of Applicant's Prior Art Fig. 3 is the step of performing an alignment between said first and second substrates while (at the same time) pressing said second substrate on a surface of said first substrate. The JP'857 discloses in paragraphs 0022 and 0025 that it is possible to perform alignment between the first and second substrates and at the same time pressing the two substrates. Thus, it would have been obvious to a person of ordinary skill in the art to perform alignment between the first and second substrates and at the same time pressing the two substrates in the method of Applicant's Prior Art Fig. 3 for miniaturizing of a configuration, preventing a location gap and obtaining a highly precise liquid crystal cell, as disclosed in paragraphs 0022 and 0025 of the JP'857.

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Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 is allowed over the prior art because none of the prior art discloses or suggest a method as recited in claim 1 *in combination* with the step of fixing each of said first and second substrates on first and second surface plates by first and second supporter for restraining the displacement in the surface direction, before performing the alignment between said first and second substrates. Claims 3 and 4 are also allowed since they depend on the allowed claim 2.


Claim 7 is allowed over the prior art of record because none of the prior art discloses or suggest a method comprising the steps of performing an alignment between said first and second substrates by sliding said first substrate in two axial directions parallel to the surface and in a circumferential direction having an axis vertical to said surface as a rotating axis, in a vacuum chamber where the internal pressure is below a predetermined value, while pressing said second substrate on a surface of said first substrate on which said liquid crystal is dropped with a predetermined pressure; irradiating ultraviolet rays to said photo-curable resin in the state that said first and second substrates are press-welded; and releasing said vacuum chamber into atmospheric pressure.

A copy of the JP 2000-066163 has not been furnished with this Office action because it had been cited in the parent application.

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Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


ROBERT H. KIM
SUPERVISOR, PATENT EXAMINER
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TVD

03/05